

Gambaran Umum Perusahaan

Di PT. Bambang Djaja

PT. Bambang Djaja merupakan salah satu perusahaan di Indonesia yang bergerak di bidang Industri Trafo yang terletak di kawasan Rungkut Industri. Banyak manfaat yang diperoleh dengan keberadaan PT. Bambang Djaja, salah satunya adalah mengurangi angka atau tingkat pengangguran karena banyak menyerap tenaga kerja disekitarnya dan juga secara langsung akan meningkatkan keadaan ekonomi masyarakat sekitar yang ditandai dengan meningkatnya pendapatan perkapita masyarakat setempat.

PT. Bambang Djaja juga memberikan kesempatan serta fasilitas bagi mahasiswa untuk melakukan Kerja Praktek dan juga pengerjaan Tugas Akhir. Dengan kerja praktek mahasiswa dapat membanding dan menerapkan teori-teori yang diperoleh selama kuliah dengan kenyataan secara langsung mengenai proses produksi pembuatan Trafo mulai dari bahan baku sampai dengan bahan jadi dan maintenance. Selain itu mahasiswa akan mengetahui tentang proses produksi dan permasalahan yang ada dalam perusahaan khususnya dalam proses produksi serta mengetahui kualitas dari perusahaan.



Yth Karyawan

PT. Bambang Djaja

Di tempat

Dengan Hormat,

Saya mahasiswa program S1 Jurusan Teknik Industri UPN “Veteran” Surabaya Jawa Timur. Saat ini saya sedang melakukan tugas akhir dengan judul **“PENGUKURAN TINGKAT KESEHATAN DAN KESELAMATAN KERJA (K3) UNTUK MENGKATEGORIKAN HAZARD DENGAN PENDEKATAN RISK ASSESSMENT PADA PT. BAMBANG DJAJA SURABAYA ”**.

Penelitian ini bertujuan untuk menghitung atau mengukur seberapa besar pelaksanaan program K-3. Pada kuisioner ini Bapak / Ibu dimohon kesediaannya untuk mengisi kuisioner. Saya sangat mengharapkan bantuan Bapak / Ibu mengisi kuisioner sesuai dengan kondisi yang ada.

Adapun petunjuk cara pengisian kuisioner adalah sebagai berikut : Bapak / Ibu diminta mengisi dengan skala 1, 2 dan 3.

Dimana :

- Skala 1 = Bila Anda merasa kondisi riil sama sekali belum memenuhi standar keselamatan dan kesehatan kerja (K3).
- Skala 2 = Bila Anda merasa kondisi riil memenuhi sebagian dari standar keselamatan dan kesehatan kerja (K3)
- Skala 3 = Bila Anda merasa kondisi riil telah memenuhi standar keselamatan dan kesehatan kerja (K3).

Sebagai contoh pengisian dapat dilihat dibawah ini :

Kode	Implementasi Program K3	Skala Nilai			Keterangan
		1	2	3	
A	Penggunaan APD				
A1	1.1. Peralatan keselamatan kerja sudah terpenuhi dan dalam kondisi baik	1	2	3	

Atas kesediaan dalam pengisian kuisioner saya ucapkan terima kasih.

Hormat Saya,

(Angga Julizar Amansyah)



Nama :

No.	Kode	Implementasi Program K3	Skala Nilai			Keterangan
			1	2	3	
1.	A	Penggunaan Alat Pelindung Diri (APD)				
	A1	1.1. Peralatan keselamatan kerja sudah terpenuhi dan dalam kondisi baik	1	2	3	
	A2	1.2. APD telah tersedia untuk setiap jenis pekerjaan yang berbahaya dan sesuai standar	1	2	3	
	A3	1.3. Semua peralatan APD telah digunakan dengan benar	1	2	3	
	A4	1.4. Pekerja mentaati penggunaan APD dilokasi kerja	1	2	3	
	A5	1.5. Petugas K3 selalu mengontrol distribusi dan penggunaan APD	1	2	3	
2.	B	Upaya pencegahan terjadi keadaan darurat				
	B1	2.1. Pihak PT. Indojoya Prima Semesta Memiliki prosedur dalam menghadapi keadaan darurat dengan baik	1	2	3	
	B2	2.2. Pekerja memahami respon yang harus diambil dalam keadaan darurat sebelum tim bantuan tiba	1	2	3	
	B3	2.3. Latihan mengatasi keadaan bahaya sudah disusun dan dilaksanakan dengan baik dan rutin	1	2	3	
	B4	2.4. Proses pengawasan berlangsung secara rutin dan terjadwal	1	2	3	
3.	C	Penyelidikan Kecelakaan				
	C1	3.1. Data kecelakaan kerja tercatat dengan lengkap	1	2	3	
	C2	3.2. Pengawas melaporkan tentang semua jenis kecelakaan yang terjadi dalam 24 jam	1	2	3	
	C3	3.3. Petugas HS (<i>Healthy Safety</i>) menindaklanjuti semua laporan yang berkaitan dengan aspek K3	1	2	3	
4.	D	Hubungan koordinasi dengan pihak <i>security</i>				
	D1	4.1. Pihak <i>security</i> mengontrol benda yang dibawa pekerja saat memasuki area operasi	1	2	3	
	D2	4.2. <i>Security</i> selalu siaga dalam menjaga keamanan lingkungan sekitar pabrik	1	2	3	
	D3	4.3. <i>Security</i> selalu siaga dalam mengawasi keluar-masuknya orang atau kendaraan	1	2	3	
5.	E	Hubungan koordinasi dengan pihak teknik				
	E1	5.1. Semua mesin berbahaya dalam keadaan terlindungi dan bisa digunakan sesuai fungsi dengan baik	1	2	3	
	E2	5.2. Program pemeliharaan mesin secara <i>preventive</i> sudah terjadwal	1	2	3	
	E3	5.3. Adanya pemberitahuan dini tentang cara, beban, dan peringatan penggunaan	1	2	3	
6.	F	Training				
	F1	6.1. Pelatihan dan pembinaan operasional telah diikuti oleh pekerja	1	2	3	
	F2	6.2. Pelatihan dan pembinaan operasional telah dilaksanakan secara berkelanjutan (<i>continue</i>)	1	2	3	



	F3	6.3. Pelatihan dan pembinaan operasional telah berjalan efektif	1	2	3	
7.	G	Inspeksi				
	G1	7.1. Pihak HS (<i>Healthy Safety</i>) telah melakukan inspeksi di daerah kerja secara rutin	1	2	3	
	G2	7.2. Dukungan dan keikutsertaan manajemen puncak dalam kegiatan inspeksi	1	2	3	
	G3	7.3. Adanya peringatan dan sanksi yang jelas setiap kelalaian pekerja dalam bekerja	1	2	3	
	G4	7.4. Adanya buku keterangan dan dokumentasi yang dijadikan sebagai bahan monitoring	1	2	3	
8.	H	Pengendalian limbah dan polusi				
	H1	8.1. Telah terprogram sistem pembuangan yang baik	1	2	3	
	H2	8.2. Sistem pembuangan tertutup dengan baik dan sesuai fungsi	1	2	3	
	H3	8.3. Telah terprogram sistem pengolahan limbah yang masih bisa diolah dengan baik	1	2	3	
	H4	8.4. Sistem pengolahan limbah telah dilaksanakan secara efektif	1	2	3	
	H5	8.5. Telah terprogram sistem pencegahan meluasnya efek kecelakaan terhadap lingkungan sekitar	1	2	3	
	H6	8.6 Adanya tim khusus yang berpengalaman guna mengatasi meluasnya efek kecelakaan				
9.	I	Akses jalan masuk dan evakuasi				
	I1	9.1. Jalan masuk dan evakuasi yang dilalui pekerja dalam kondisi baik	1	2	3	
	I2	9.2. Seluruh jalan dalam kondisi bersih dari partikel berbahaya (kerikil, minyak, limbah, air, dll)	1	2	3	
	I3	9.3. Kondisi jalan berada dalam kondisi aman saat musim kering dan musim hujan	1	2	3	

TERIMA KASIH

Hasil Kuisisioner

No.	Nama	Kode Pertanyaan Kuisioner																																		
		A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	G4	H1	H2	H3	H4	H5	H6	I1	I2	I3	
1	Danang	2	2	2	2	3	3	2	3	3	2	3	3	3	3	3	2	2	2	2	3	2	3	2	3	2	2	2	2	2	3	3	2	2	2	
2	Fikri	2	3	2	2	3	2	3	2	2	3	3	3	2	2	2	2	2	2	2	2	2	2	3	2	3	3	3	2	3	2	3	2	2	2	
3	Sunarto	2	3	2	2	3	2	3	2	2	2	3	3	2	2	2	2	3	2	2	2	3	3	2	2	2	2	3	2	2	2	3	2	2	2	
4	Ali	3	3	2	2	3	3	3	3	3	2	3	2	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	
5	Tito	2	2	3	2	3	2	3	2	3	2	2	3	2	3	2	2	3	2	2	3	2	2	2	2	3	2	2	2	3	2	3	2	2	2	
6	Feri	3	3	3	2	3	2	2	2	3	3	2	2	3	2	2	2	3	2	2	3	3	3	3	3	3	3	2	2	3	3	2	3	3	2	
7	Aril	3	3	2	2	3	3	2	3	3	3	3	3	3	2	3	2	2	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	
8	Fuadi	3	3	3	3	3	2	2	3	2	3	3	3	2	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	3	3	3	2	
9	Kunto	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	
10	Raden	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
11	Nanang	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	
12	Supri	2	2	3	3	3	3	3	3	3	3	3	1	1	3	1	3	1	1	3	3	3	3	1	3	1	2	3	3	3	3	3	3	1	1	3
13	Faisal	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
14	rizki	3	3	3	3	3	3	3	3	3	3	3	2	2	3	2	3	2	2	3	2	3	3	2	2	2	2	2	3	3	2	2	2	2	3	
15	Beni	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
16	Hendi	2	2	3	3	3	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
17	Jumar	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
18	Oktam	2	2	2	2	2	2	2	2	2	2	2	2	3	2	2	2	2	3	2	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
19	Kus	3	3	2	2	2	2	1	1	1	1	2	1	3	1	1	2	1	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	1	1	3
20	Edi	3	3	1	1	1	3	3	2	3	3	3	2	2	2	3	3	2	2	3	2	3	2	2	2	2	3	2	2	3	2	2	2	2	3	
21	Hari	3	2	2	3	2	3	3	3	3	3	2	2	3	3	2	2	3	3	3	3	3	3	3	3	2	2	3	3	2	3	2	3	3	3	
22	Giyono	2	3	3	2	2	3	3	3	3	2	2	3	3	2	2	3	3	3	3	3	3	2	3	3	3	3	3	2	3	2	3	3	3	3	
23	Sugito	3	3	3	3	3	3	2	2	2	3	3	3	3	3	3	2	2	2	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3	2	2
24	Rifai	2	2	2	2	2	3	3	3	3	2	3	2	2	2	3	3	2	2	3	3	3	3	2	2	3	3	2	3	3	3	3	3	3	3	2
25	Sumaji	2	2	2	2	3	2	3	2	2	2	3	2	2	3	2	2	3	2	2	2	2	2	3	2	2	2	3	3	2	3	2	2	3	3	3
26	Jamaludin	2	3	3	2	3	2	2	3	2	3	2	3	2	2	3	2	3	3	2	2	3	3	3	2	3	2	3	2	2	2	2	2	3	2	3
27	Fuad	2	2	2	3	2	2	3	2	2	2	3	2	3	3	2	2	2	2	3	2	3	2	2	3	2	2	2	2	2	3	2	2	3	3	
28	Subandi	2	2	2	2	3	2	3	3	2	3	2	3	2	3	2	2	3	3	2	2	3	3	3	3	2	3	3	3	2	3	3	2	2	3	
29	Iswandi	2	2	2	2	2	2	2	3	3	2	2	3	2	2	3	2	2	3	2	2	2	2	3	2	3	2	3	2	3	2	3	2	3	2	
30	Handa	2	3	3	3	3	2	3	2	3	2	2	3	2	3	2	2	3	3	2	2	2	3	2	3	3	2	2	3	2	3	2	3	3	2	

Hasil Kuisisioner

No.	Nama	Kode Pertanyaan Kuisioner																																			
		A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	G4	H1	H2	H3	H4	H5	H6	I1	I2	I3		
31	Sugiyantoro	2	3	2	2	3	2	3	2	3	2	3	2	2	3	2	2	3	2	2	3	2	2	3	2	3	2	3	2	3	2	3	2	3	2	3	3
32	Iswanto	2	3	3	2	3	2	3	2	3	2	3	2	3	2	3	3	3	2	3	2	2	2	3	2	3	2	3	2	3	2	3	2	3	2	3	3
33	Langga	2	3	2	3	2	3	2	2	3	2	3	2	3	2	3	2	3	2	3	3	2	3	2	3	3	2	3	2	2	3	2	3	2	3	2	2
34	Firman	2	3	3	2	3	3	2	3	2	3	2	2	3	2	3	2	3	2	2	2	2	3	2	3	3	2	3	2	2	3	2	3	3	2	2	
35	Ega	2	2	2	2	3	3	3	2	3	3	2	3	2	2	3	2	2	2	2	2	2	2	2	3	2	2	3	2	2	3	2	3	2	2	2	
36	Karto	3	3	3	3	2	2	2	2	3	2	3	2	3	2	2	3	2	2	3	3	3	2	3	2	2	2	3	2	2	3	2	2	2	2	3	
37	Puji	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2
38	Koes	3	3	3	2	3	3	2	3	3	3	3	3	3	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3
39	Susilo	3	3	3	2	3	3	2	3	3	3	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	2	3	3	3	3	3	3	3	2	2
40	Budi	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	2	3	
41	Deni	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	3	2	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	2	3	
42	Arif	3	3	3	2	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	2	3
43	Agung	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3
44	Romli	2	3	3	2	2	2	3	3	3	3	2	3	3	2	3	2	3	2	3	3	3	2	2	3	3	3	2	3	3	3	2	3	3	3	3	3
45	Bayu	3	3	3	2	3	2	2	3	3	3	2	3	3	3	3	3	2	3	3	3	3	3	3	2	3	3	3	3	2	3	2	3	3	2	3	
46	Gunawan	3	3	3	2	3	3	3	3	3	3	2	3	3	3	3	2	2	3	2	3	2	3	3	3	3	3	2	3	3	3	3	2	2	2	3	
47	Imam	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
48	Samuji	3	3	2	2	3	2	2	3	3	3	2	3	3	2	3	2	2	2	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	2	3	2
49	Suparno	3	2	3	2	3	2	3	2	3	3	2	3	3	2	3	3	2	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	3	2	3	
50	Hadi	3	2	3	2	3	2	2	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	3	2	3	2		
51	Andik	3	3	3	2	3	2	2	3	3	3	2	3	3	3	3	2	3	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	3	2	3	
52	Pramono	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
53	Endo	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
54	Fauzi	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
55	Achmad	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
56	Yoni	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
57	Rendi	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	
58	Soni	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	3	
59	Dwi	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	
60	Bambang	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	3	3	

Hasil Kuisisioner

[illegible]

Rekapitulasi Hasil Kuisisioner

No.	Nama	Kode Pertanyaan Kuisioner																																		
		A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	G4	H1	H2	H3	H4	H5	H6	I1	I2	I3	
1	Danang	2	2	2	2	3	3	2	3	3	2	3	3	3	3	2	2	2	2	3	2	3	2	3	2	3	2	2	2	2	3	3	2	2	2	
2	Fikri	2	3	2	2	3	2	3	2	2	3	3	3	2	2	2	2	2	2	2	2	2	3	2	3	3	3	2	3	2	3	2	2	2		
3	Sunarto	2	3	2	2	3	2	3	2	2	2	3	3	2	2	2	2	3	2	2	2	3	3	2	2	2	2	3	2	2	2	3	2	2	2	
4	Ali	3	3	2	2	3	3	3	3	3	3	2	3	2	3	3	3	3	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	
5	Tito	2	2	3	2	3	2	3	2	3	2	2	3	2	3	2	2	3	2	2	3	2	2	2	2	3	2	2	2	3	2	3	2	2	2	
6	Feri	3	3	3	2	3	2	2	2	3	3	2	2	3	2	2	2	3	2	2	3	3	3	3	3	3	3	2	2	3	3	2	3	3	2	
7	Aril	3	3	2	2	3	3	2	3	3	3	3	3	3	2	3	2	2	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	
8	Fuadi	3	3	3	3	3	2	2	3	2	3	3	3	2	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	2	3	3	3	2	
9	Kunto	3	3	3	3	3	2	3	3	3	2	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	
10	Raden	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	
11	Nanang	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3	3	3	2	
12	Supri	2	2	2	2	3	3	2	3	3	3	3	3	2	2	3	3	3	3	2	3	3	3	2	3	3	3	3	2	3	3	2	3	3	3	
13	Faisal	3	3	3	3	3	3	3	3	3	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	
14	rizki	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	
15	Beni	3	3	2	2	3	3	2	3	3	3	3	3	2	2	3	3	3	3	2	3	3	2	2	3	2	3	2	3	2	3	2	2	3	3	
16	Hendi	2	2	3	2	3	2	2	3	2	3	2	2	2	2	2	2	2	2	3	2	2	2	2	2	2	3	2	2	3	2	3	2	2	2	
17	Jumar	2	2	3	3	2	3	2	3	3	3	2	2	3	3	2	2	3	2	2	2	3	2	2	3	2	3	2	2	2	3	2	3	3	3	
18	Oktam	2	3	3	2	3	2	2	3	2	3	2	3	2	3	2	2	3	2	2	2	2	2	2	2	3	2	3	2	3	3	2	3	2	2	
19	Kus	2	2	2	3	3	2	3	2	3	2	2	2	2	3	3	2	2	3	2	2	2	2	3	3	2	2	3	3	2	3	2	3	3	3	
20	Edi	3	3	2	2	3	3	3	2	3	3	2	3	2	2	3	2	3	3	3	2	2	2	3	3	3	3	3	2	3	2	2	3	3	2	
21	Hari	3	2	2	3	2	3	3	3	3	3	2	2	3	3	2	2	3	3	3	3	3	3	3	3	2	2	3	3	2	3	2	3	3	3	
22	Giyono	2	3	3	2	2	3	3	3	3	2	2	3	3	2	2	3	3	3	3	3	3	2	3	3	3	3	3	2	3	2	3	3	3	3	
23	Sugito	3	3	3	3	3	3	2	2	2	3	3	3	3	3	3	2	2	2	3	3	3	2	3	3	3	2	3	3	3	3	3	3	3	2	2
24	Rifai	2	2	2	2	2	3	3	3	3	2	3	2	2	2	3	3	2	2	3	3	3	3	2	2	3	3	2	3	3	3	3	3	3	2	
25	Sumaji	2	2	2	2	3	2	3	2	2	2	3	2	2	3	2	2	3	2	2	2	2	2	3	2	2	2	3	3	2	3	2	2	3	3	
26	Jamaludin	2	3	3	2	3	2	2	3	2	3	2	3	2	2	3	2	3	3	2	2	3	3	3	2	3	2	3	2	2	2	2	3	2	3	
27	Fuad	2	2	2	3	2	2	3	2	2	2	3	2	3	3	2	2	2	2	3	2	3	2	2	3	2	2	2	2	2	3	2	2	3	3	
28	Subandi	2	2	2	2	3	2	3	3	2	3	2	3	2	3	2	2	3	3	2	2	3	3	3	3	2	3	3	3	2	3	3	2	2	3	
29	Iswandi	2	2	2	2	2	2	2	3	3	2	2	3	2	2	3	2	2	3	2	2	2	2	3	2	3	2	3	2	3	2	3	2	3	2	
30	Handa	2	3	3	3	3	2	3	2	3	2	2	3	2	3	2	2	3	3	2	2	2	3	2	3	3	2	2	3	2	3	2	3	3	2	
No.	Nama	Kode Pertanyaan Kuisioner																																		
		A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	G4	H1	H2	H3	H4	H5	H6	I1	I2	I3	

Rekapitulasi Hasil Kuisisioner

31	Sugiyantoro	2	3	2	2	3	2	3	2	3	2	3	2	2	3	2	2	3	2	2	3	2	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3
----	-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

[illegible]

Rekapitulasi Hasil Kuisisioner

63	muslih	3	3	3	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
64	Suwito	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
65	Taufan	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Jumlah		172	179	176	159	178	172	176	177	183	178	175	178	178	173	177	166	173	171	178	182	180	179	178	179	182	175	181	175	178	179	180	167	165	175

Nama	Kode Pertanyaan Kuisioner																																	
	A1	A2	A3	A4	A5	B1	B2	B3	B4	C1	C2	C3	D1	D2	D3	E1	E2	E3	F1	F2	F3	G1	G2	G3	G4	H1	H2	H3	H4	H5	H6	I1	I2	I3
Rata-rata	2.65	2.75	2.71	2.45	2.74	2.65	2.71	2.72	2.82	2.74	2.69	2.74	2.74	2.66	2.72	2.55	2.66	2.63	2.74	2.80	2.77	2.75	2.74	2.75	2.80	2.69	2.78	2.69	2.74	2.75	2.77	2.57	2.54	2.69
Total Rata-rata	2.66					2.725				2.723			2.706			2.613			2.77			2.76				2.736						2.6		
Normalisasi	0.83					0.862				0.861			0.853			0.806			0.885			0.88				0.868						0.80		
Kategori	Kuning					Hijau				Hijau			Hijau			Kuning			Hijau			Hijau				Hijau						Kuning		

Output Pengujian Validitas & Reliabilitas

Case Processing Summary

		N	%
Cases	Valid	65	100,0
	Excluded ^a	0	,0
	Total	65	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,926	34

Item Statistics

	Mean	Std. Deviation	N
A1	2,65	,482	65
A2	2,75	,434	65
A3	2,71	,491	65
A4	2,45	,531	65
A5	2,74	,477	65
B1	2,65	,482	65
B2	2,71	,491	65
B3	2,72	,484	65
B4	2,82	,429	65
C1	2,74	,477	65
C2	2,69	,465	65
C3	2,74	,509	65
D1	2,74	,477	65
D2	2,66	,509	65
D3	2,72	,516	65
E1	2,55	,501	65
E2	2,66	,538	65
E3	2,63	,517	65
F1	2,74	,443	65
F2	2,80	,403	65
F3	2,77	,425	65
G1	2,75	,434	65
G2	2,74	,477	65
G3	2,75	,434	65
G4	2,80	,440	65
H1	2,69	,465	65
H2	2,78	,414	65
H3	2,69	,465	65
H4	2,74	,443	65
H5	2,75	,434	65
H6	2,77	,425	65
I1	2,57	,612	65
I2	2,54	,561	65
I3	2,69	,465	65

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
A1	89,26	71,446	,591	,923
A2	89,15	73,601	,363	,925
A3	89,20	71,225	,606	,923
A4	89,46	72,096	,456	,925
A5	89,17	74,455	,220	,927
B1	89,26	71,821	,543	,923
B2	89,20	73,569	,318	,926
B3	89,18	70,715	,680	,922
B4	89,09	72,710	,492	,924
C1	89,17	71,487	,592	,923
C2	89,22	73,359	,366	,926
C3	89,17	71,393	,563	,923
D1	89,17	72,143	,509	,924
D2	89,25	71,407	,561	,923
D3	89,18	71,059	,594	,923
E1	89,35	71,545	,554	,923
E2	89,25	71,720	,491	,924
E3	89,28	71,516	,538	,924
F1	89,17	71,487	,642	,922
F2	89,11	72,566	,548	,924
F3	89,14	72,777	,488	,924
G1	89,15	72,695	,487	,924
G2	89,17	72,080	,517	,924
G3	89,15	72,413	,526	,924
G4	89,11	72,348	,528	,924
H1	89,22	70,922	,683	,922
H2	89,12	73,797	,354	,926
H3	89,22	71,203	,646	,922
H4	89,17	72,768	,467	,924
H5	89,15	73,195	,418	,925
H6	89,14	72,684	,501	,924
I1	89,34	72,040	,393	,926
I2	89,37	72,049	,433	,925
I3	89,22	73,172	,390	,925

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
91,91	76,491	8,746	34

Perhitungan Manual Implementasi Program K3

1. Penggunaan APD (Alat Pelindung Diri).

$$\bar{x} = \frac{\sum x}{N}$$

rata-rata A1

$$\begin{aligned}
 &= 2+2+2+3+2+3+3+3+3+2+3+2+2+3+3+2+3+2+3+3+3+2+3+2+2+2+2+2+2+2 \\
 &+ 2+2+2+2+3+3+3+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,65$$

rata-rata A2

$$\begin{aligned}
 &= 2+3+3+3+2+3+3+3+3+2+3+2+2+3+3+2+3+2+3+3+2+3+3+2+2+3+2+2+2+3+3 \\
 &+ 3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+2+2+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,75$$

rata-rata A3

$$\begin{aligned}
 &= 2+2+2+2+3+3+2+3+3+3+3+3+3+3+3+3+2+2+1+2+3+3+2+2+3+2+2+2+3+2 \\
 &+ 3+2+3+2+3+3+3+3+3+3+3+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,71$$

rata-rata A4

$$\begin{aligned}
 &= 2+2+2+2+2+2+2+3+3+3+3+3+3+3+3+3+2+2+1+3+2+3+2+2+2+3+2+2+3+2 \\
 &+ 2+3+2+2+3+3+2+2+2+2+2+2+2+2+2+3+2+2+2+2+3+3+2+3+3+3+3+3+3+3 \\
 &+ 2+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,45$$

$$\begin{aligned} &\text{rata-rata} \quad \text{A5} \\ &= 3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+2+2+1+2+2+3+2+3+3+2+3+2+3+3 \\ &+ 3+2+3+3+2+3+3+3+3+3+3+3+2+3+3+3+3+3+3+3+2+3+2+3+2+3+3+3+3 \\ &+ 2+3+2 \\ &\hline &65 \end{aligned}$$

$$= 2,74$$

$$\begin{aligned} \text{Total rata-rata penggunaan APD} &= \frac{\sum \bar{x}}{n} \\ &= \frac{2,65 + 2,75 + 2,71 + 2,45 + 2,74}{5} \\ &= 2,66 \end{aligned}$$

$$\begin{aligned} \text{Achivement kategori penilaian} &= \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\% \\ &= \frac{(2,66 - 1)}{(3 - 1)} \times 100\% = 83\% \end{aligned}$$

2. Upaya Pencegahan Terjadinya Kecelakaan

$$\bar{x} = \frac{\sum x}{N}$$

$$\begin{aligned} &\text{rata-rata} \quad \text{B1} \\ &= 3+2+2+3+2+2+3+2+3+3+3+3+3+3+3+3+2+2+2+3+3+3+3+3+2+2+2+2+2+2+2 \\ &+ 2+3+3+3+2+3+3+3+3+3+3+3+2+2+3+3+2+2+2+2+3+3+3+3+3+3+3+3+3+3 \\ &+ 3+3+3 \\ &\hline &65 \end{aligned}$$

$$= 2,65$$

$$\begin{aligned} &\text{rata-rata} \quad \text{B2} \\ &= 2+3+3+3+3+2+2+2+3+3+3+3+3+3+3+3+2+1+3+3+3+2+3+3+2+3+3+2+3+3 \\ &+ 3+2+2+3+2+3+2+2+3+3+3+3+3+3+2+3+3+2+3+2+2+3+3+3+3+3+3+3+3+3 \\ &+ 3+3+3 \\ &\hline &65 \end{aligned}$$

$$= 2,71$$

rata-rata B3

$$\begin{aligned}
 &= 2+2+2+3+2+2+3+3+3+3+3+3+3+3+3+3+2+1+2+3+3+2+3+2+3+2+3+3+2+2 \\
 &+ 2+2+3+2+2+3+3+3+3+3+3+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &\quad\quad\quad 65 \\
 &= 2,72
 \end{aligned}$$

rata-rata B4

$$\begin{aligned}
 &= 3+2+2+3+3+3+3+2+3+3+3+3+3+3+3+3+2+1+3+3+3+2+3+2+2+2+2+3+3+3 \\
 &+ 3+3+2+3 \\
 &+ 3+3+3 \\
 &\hline
 &\quad\quad\quad 65 \\
 &= 2,82
 \end{aligned}$$

$$\begin{aligned}
 \text{Total rata-rata Upaya pencegahan terjadinya kecelakaan} &= \frac{\sum \bar{x}}{n} \\
 &= \frac{2,65 + 2,71 + 2,72 + 2,82}{4} \\
 &= \mathbf{2,725} \\
 \text{Achivement kategori penilaian} &= \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\% \\
 &= \frac{(2,725 - 1)}{(3 - 1)} \times 100\% = \mathbf{86.2\%}
 \end{aligned}$$

3. Penyelidikan Kecelakaan

$$\bar{x} = \frac{\sum x}{N}$$

rata-rata C1

$$\begin{aligned}
 &= 2+3+2+3+2+3+3+3+3+3+3+3+3+3+3+3+2+1+3+3+2+3+2+2+3+2+3+2+2+2 \\
 &+ 2+2+3+3+2+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &\quad\quad\quad 65 \\
 &= 2,74
 \end{aligned}$$

rata-rata C2

$$\begin{aligned}
 &= 3+3+3+2+2+2+3+3+3+3+3+3+3+3+2+3+2+2+3+2+2+3+3+3+2+3+2+2+2+3 \\
 &+ 3+3+2+2+3+3+3+3+3+3+3+3+2+2+2+3+2+2+3+2+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,69$$

rata-rata C3

$$\begin{aligned}
 &= 3+3+3+3+3+2+3+3+3+3+3+1+3+2+3+3+3+2+1+2+2+3+3+2+2+3+2+3+3+3+2 \\
 &+ 2+2+2+3+2+3 \\
 &+ 3+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,74$$

$$\text{Total rata-rata Upaya pencegahan terjadinya kecelakaan} = \frac{\sum \bar{x}}{n}$$

$$= \frac{2,74 + 2,69 + 2,74}{3}$$

$$= \mathbf{2,723}$$

$$\text{Achivement kategori penilaian} = \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\%$$

$$= \frac{(2,723 - 1)}{(3 - 1)} \times 100\% = \mathbf{86.1\%}$$

4. Hubungan Koordinasi Dengan Pihak Security

$$\bar{x} = \frac{\sum x}{N}$$

rata-rata D1

$$\begin{aligned}
 &= 3+2+2+2+2+3+3+2+3+3+3+1+3+2+3+3+3+3+3+2+3+3+3+2+2+2+3+2+2+2+2 \\
 &+ 3+3+3+2+3 \\
 &+ 3+3+3 \\
 &\hline
 &65
 \end{aligned}$$

$$= 2,74$$

D2

$$\begin{array}{r} = 3+2+2+3+3+2+2+2+3+3+3+3+3+3+3+3+2+1+2+3+2+3+2+3+2+3+3+2+3+3 \\ +2+2+2+2+2+3+3+3+3+3+3+3+2+3+3+3+2+2+2+3+3+3+3+3+3+3+3+3+3+3 \\ +3+3+3 \end{array}$$

65

$$= 2,66$$

D3

$$\begin{array}{l} = 3+2+2+3+2+2+3+3+3+3+3+1+3+2+3+3+3+2+1+3+2+2+3+3+2+3+2+2+3+2+2 \\ +3+3+3+3+2+3 \\ +3+3+3 \end{array}$$

65

$$= 2,72$$

$$\text{Total rata-rata Upaya pencegahan terjadinya kecelakaan} = \frac{\sum \bar{x}}{n}$$

$$= \frac{2,74 + 2,66 + 2,72}{3}$$

$$= 2,706$$

$$\text{Achievement kategori penilaian} = \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\%$$

$$= \frac{(2,703 - 1)}{(3 - 1)} \times 100\% = \mathbf{85,3 \, \%}$$

5. Hubungan Koordinasi Dengan Pihak Teknik

$$\bar{x} = \frac{\sum x}{N}$$

E1

$$\begin{array}{r} = 2+2+2+3+2+2+2+3+3+3+3+3+3+3+3+2+3+2+2+3+2+3+2+3+2+2+2+2+2+2+2 \\ + 3+2+2+2+3+2+3+2+2+2+3+3+2+3+2+3+2+3+3+2+3+3+3+3+3+3+3+3+3+3 \\ + 3+3+3 \\ \hline 65 \end{array}$$

$$= 2,55$$

rata-rata E2

$$\begin{array}{r} =2+2+3+3+3+3+3+2+3+3+3+3+1+3+2+3+3+3+2+1+2+3+3+2+2+3+3+2+3+2+3+3 \\ +3+3+3+2+2+3+2+3+2+3+3+3+3+2+2+3+2+2+3+3+3+3+3+3+3+3+3+3+3+3 \\ +3+3+3 \end{array}$$

65

$$= 2,66$$

rata–rata E3

$$\begin{array}{r} = 2+2+2+2+2+2+3+3+3+3+3+1+3+2+3+3+3+3+3+2+3+3+2+2+2+3+2+3+3+3+2 \\ +2+2+2+2+2+2+3+3+3+2+3+3+2+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3 \\ +3+3+3 \\ \hline 65 \end{array}$$

$$= 2,63$$

$$\text{Total rata-rata Upaya pencegahan terjadinya kecelakaan} = \frac{\sum \bar{x}}{n}$$

$$= \frac{2,55 + 2,66 + 2,63}{3}$$

= 2,613

$$\text{Achievement kategori penilaian} = \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\%$$

$$= \frac{(2,613 - 1)}{(3 - 1)} \times 100\% = \mathbf{80,6\%}$$

6. *Training / Pelatihan*

$$\bar{x} = \frac{\sum x}{N}$$

rata–rata	F1
-----------	----

$$\begin{array}{r} = 2+2+2+3+2+2+3+2+3+3+3+3+3+3+3+3+2+2+3+3+3+3+3+2+2+3+2+2+2+2 \\ +3+3+2+2+3+3+3+3+3+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+3 \\ +3+3+3 \end{array}$$

65

$$= 2,74$$

rata–rata	F2
-----------	----

$$\begin{array}{r} = 3 + 2 + 2 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 2 + 3 + 3 + 3 + 3 + 3 + 2 + 3 + 3 + 3 + 3 + 2 + 2 + 2 + 2 + 2 + 3 \\ + 2 + 3 + 2 + 2 + 3 \\ + 3 + 3 + 3 \end{array}$$

$$65$$

$$= 2,80$$

rata–rata F3

$$\begin{array}{r} = 2+2+3+3+2+3+3+3+3+3+3+3+3+3+3+3+2+3+3+3+3+3+3+2+3+3+3+2+2+2 \\ +2+2+2+2+3+3+2+2+3+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+3 \\ +3+3+3 \\ \hline 65 \end{array}$$

$$= 2,77$$

$$\text{Total rata-rata Upaya pencegahan terjadinya kecelakaan} = \frac{\sum \bar{x}}{n}$$

$$= \frac{2,74 + 2,80 + 2,77}{3}$$

$$= 2,77$$

$$\text{Achievement kategori penilaian} = \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\%$$

$$= \frac{(2,77 - 1)}{(3 - 1)} \times 100\% = \mathbf{88,5 \, \%}$$

7. Inspeksi

$$\bar{x} = \frac{\sum x}{N}$$

rata-rata G1

$$\begin{array}{r} = 3 + 2 + 3 + 3 + 2 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 2 + 3 + 2 + 3 + 2 + 2 + 3 + 2 + 3 + 2 + 3 + 2 \\ + 2 + 3 + 3 + 2 + 2 + 3 + 3 + 3 + 3 + 3 + 2 + 3 + 2 + 3 + 3 + 3 + 3 + 3 + 2 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 \\ + 3 + 3 + 3 \end{array}$$

65

$$= 2,75$$

8. Pengendalian Limbah dan Polusi

$$\bar{x} = \frac{\sum x}{N}$$

rata-rata H1

$$\begin{aligned} &= 2+3+2+3+2+3+3+3+3+3+2+3+2+3+3+3+2+3+3+2+3+2+2+2+3+2+2+2 \\ &+ 2+2+2+2+2+3+3+3+3+3+3+3+3+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3 \\ &+ 3+3+3 \end{aligned}$$

65

$$= 2,69$$

rata-rata H2

$$\begin{aligned} &= 2+3+3+3+2+2+3+3+3+3+3+3+3+2+3+3+3+2+3+2+3+3+3+2+3+3+2+3+3+2+3 \\ &+ 3+3+3+3+3+3+3+2+3+3+3+3+2+3+2+3+3+2+3+2+3+3+3+3+3+3+3+3+3+3 \\ &+ 3+3+3 \end{aligned}$$

65

$$= 2,78$$

rata-rata H3

$$\begin{aligned} &= 2+2+2+3+2+2+3+3+3+3+3+3+3+3+3+3+2+3+2+3+2+3+3+3+2+2+3+2+3+2 \\ &+ 2+2+2+2+2+3+3+3+3+3+3+3+3+3+2+3+3+3+2+2+3+3+3+3+3+3+3+3+3+3+3 \\ &+ 3+3+3 \end{aligned}$$

65

$$= 2,69$$

rata-rata H4

$$\begin{aligned} &= 2+3+2+3+3+3+3+3+3+3+3+3+3+3+3+2+3+3+2+3+3+3+2+2+2+2+3+2+3 \\ &+ 3+2+2+2+2+3+3+3+2+2+3+3+3+3+3+3+3+2+2+3+3+3+3+3+3+3+3+3+3+3+3 \\ &+ 3+3+3 \end{aligned}$$

65

$$= 2,74$$

rata-rata H5

$$\begin{aligned}
 &= 3+2+2+3+2+3+3+2+3+3+3+3+3+2+3+3+3+2+3+2+3+2+3+3+3+2+3+3+2+3+2 \\
 &+ 2+3+3+3+3+3+3+3+3+2+3+3+2+2+3+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &\quad\quad\quad 65
 \end{aligned}$$

$$= 2,75$$

rata-rata H6

$$\begin{aligned}
 &= 3+3+3+3+3+2+3+3+3+3+3+3+3+2+3+3+3+2+3+2+2+3+3+3+2+2+2+3+3+2+3 \\
 &+ 3+2+2+2+2+3+3+3+3+3+3+3+3+3+3+2+3+3+2+3+3+3+3+3+3+3+3+3+3+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &\quad\quad\quad 65
 \end{aligned}$$

$$= 2,77$$

$$\begin{aligned}
 \text{Total rata-rata Pengendalian Limbah dan Polusi} &= \frac{\sum \bar{x}}{n} \\
 &= \frac{2,69 + 2,78 + 2,69 + 2,74 + 2,75 + 2,77}{6} \\
 &= \mathbf{2,736}
 \end{aligned}$$

$$\begin{aligned}
 \text{Achivement kategori penilaian} &= \frac{(\text{nilai aktual} - \text{skala minimum})}{(\text{skala maksimum} - \text{skala minimum})} \times 100\% \\
 &= \frac{(2,733 - 1)}{(3 - 1)} \times 100\% = \mathbf{86,8 \%}
 \end{aligned}$$

9. Akses Jalan Masuk dan Evakuasi

$$\bar{x} = \frac{\sum x}{N}$$

rata-rata I1

$$\begin{aligned}
 &= 2+2+2+3+2+3+3+3+1+3+2+1+3+2+3+3+3+2+1+2+3+3+3+3+2+3+2+2+2+3+2 \\
 &+ 2+3+3+3+2+3+3+3+3+3+3+3+3+3+3+2+3+2+3+2+3+3+3+3+3+3+2+2+3+1+3+3 \\
 &+ 3+3+3 \\
 &\hline
 &\quad\quad\quad 65
 \end{aligned}$$

$$= 2,57$$

Risk Assesment Code

		<i>Mishap Probability</i>			
		A	B	C	D
<i>Severity</i>	I	1	1	2	3
	II	1	2	3	4
	III	2	3	4	5
	IV	3	4	5	5

R TABEL DENGAN $\alpha = 95\%$

df	T	r
1	6.3138	0.9877
2	2.9200	0.9000
3	2.3534	0.8054
4	2.1318	0.7293
5	2.0150	0.6694
6	1.9432	0.6215
7	1.8946	0.5822
8	1.8595	0.5494
9	1.8331	0.5214
10	1.8125	0.4973
11	1.7959	0.4762
12	1.7823	0.4575
13	1.7709	0.4409
14	1.7613	0.4259
15	1.7531	0.4124
16	1.7459	0.4000
17	1.7396	0.3887
18	1.7341	0.3783
19	1.7291	0.3687
20	1.7247	0.3598
21	1.7207	0.3515
22	1.7171	0.3438
23	1.7139	0.3365
24	1.7109	0.3297
25	1.7081	0.3233
26	1.7056	0.3172
27	1.7033	0.3115
28	1.7011	0.3061
29	1.6991	0.3009
30	1.6973	0.2960
31	1.6955	0.2913
32	1.6939	0.2869
33	1.6924	0.2826
34	1.6909	0.2785
35	1.6896	0.2746
36	1.6883	0.2709
37	1.6871	0.2673
38	1.6860	0.2638
39	1.6849	0.2605
40	1.6839	0.2573
41	1.6829	0.2542
42	1.6820	0.2512
43	1.6811	0.2483
44	1.6802	0.2455
45	1.6794	0.2429
46	1.6787	0.2403
47	1.6779	0.2377
48	1.6772	0.2353
49	1.6766	0.2329
50	1.6759	0.2306

df	t	r
51	1.6753	0.2284
52	1.6747	0.2262
53	1.6741	0.2241
54	1.6736	0.2221
55	1.6730	0.2201
56	1.6725	0.2181
57	1.6720	0.2162
58	1.6716	0.2144
59	1.6711	0.2126
60	1.6706	0.2108
61	1.6702	0.2091
62	1.6698	0.2075
63	1.6694	0.2058
64	1.6690	0.2042
65	1.6686	0.2027
66	1.6683	0.2012
67	1.6679	0.1997
68	1.6676	0.1982
69	1.6672	0.1968
70	1.6669	0.1954
71	1.6666	0.1940
72	1.6663	0.1927
73	1.6660	0.1914
74	1.6657	0.1901
75	1.6654	0.1888
76	1.6652	0.1876
77	1.6649	0.1864
78	1.6646	0.1852
79	1.6644	0.1841
80	1.6641	0.1829
81	1.6639	0.1818
82	1.6636	0.1807
83	1.6634	0.1796
84	1.6632	0.1786
85	1.6630	0.1775
86	1.6628	0.1765
87	1.6626	0.1755
88	1.6624	0.1745
89	1.6622	0.1735
90	1.6620	0.1726
91	1.6618	0.1716
92	1.6616	0.1707
93	1.6614	0.1698
94	1.6612	0.1689
95	1.6611	0.1680
96	1.6609	0.1671
97	1.6607	0.1663
98	1.6606	0.1654
99	1.6604	0.1646
100	1.6602	0.1638

α Tabel

df	t	r	x²	df	t	r	x²
1	6.314	.988	3.841	39	1.685	.260	54.572
2	2.920	.900	5.991	40	1.684	.257	55.758
3	2.353	.805	7.815	41	1.683	.254	56.942
4	2.132	.729	9.488	42	1.682	.251	58.124
5	2.015	.669	11.070	43	1.681	.248	59.304
6	1.943	.621	12.592	44	1.680	.246	60.481
7	1.895	.582	14.067	45	1.679	.243	61.656
8	1.860	.549	15.507	46	1.679	.240	62.830
9	1.833	.521	16.919	47	1.678	.238	64.001
10	1.812	.497	18.307	48	1.677	.235	65.171
11	1.796	.476	19.675	49	1.677	.233	66.339
12	1.782	.458	21.026	50	1.676	.231	67.505
13	1.771	.441	22.362	51	1.675	.228	68.669
14	1.761	.426	23.685	52	1.675	.226	69.832
15	1.753	.412	24.996	53	1.674	.224	70.993
16	1.746	.400	26.296	54	1.674	.222	72.153
17	1.740	.389	27.587	55	1.673	.220	73.311
18	1.734	.378	28.869	56	1.673	.218	74.468
19	1.729	.369	30.144	57	1.672	.216	75.624
20	1.725	.360	31.410	58	1.672	.214	76.778
21	1.721	.352	32.671	59	1.671	.213	77.931
22	1.717	.344	33.924	60	1.671	.211	79.082
23	1.714	.337	35.172	61	1.670	.209	80.232
24	1.711	.330	36.415	62	1.670	.207	81.381
25	1.708	.323	37.652	63	1.669	.206	82.529
26	1.706	.317	38.885	64	1.669	.204	83.675
27	1.703	.311	40.113	65	1.669	.203	84.821
28	1.701	.306	41.337	66	1.668	.201	85.965
29	1.699	.301	42.557	67	1.668	.200	87.108
30	1.697	.296	43.773	68	1.668	.198	88.250
31	1.696	.291	44.985	69	1.667	.197	89.391
32	1.694	.287	46.194	70	1.667	.195	90.531
33	1.692	.283	47.400	71	1.667	.194	91.670
34	1.691	.279	48.602	72	1.666	.193	92.808
35	1.690	.275	49.802	73	1.666	.191	93.945
36	1.688	.271	50.998	74	1.666	.190	95.081
37	1.687	.267	52.192	75	1.665	.189	96.217
38	1.686	.264	53.384				